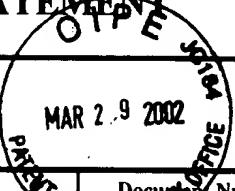


INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): Daniel J. O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial	Document Description
DKW	Bezkorovainy et al., "Iron Metabolism in Bifidobacteria," <i>Int. Dairy Journal</i> 6, 1996; 6(10):905-919
DKW	Bezkorovainy et al., "Aspects of Iron Metabolism in Bifidobacterium Bifidum Var. Pennsylvanicus," <i>Int. J. Biochem.</i> , 1983; 15(3):361-366
DKW	Topouzian et al., "Iron uptake by Bifidobacterium bifidum var. pennsylvanicus: the effect of sulphydryl reagents and metal chelators," <i>IRCS Med. Sci.</i> , 1986, 14(3):275-276

**COPY OF PAPERS
ORIGINALLY FILED**

EXAMINER	Date Considered
<i>Deborah K. Ware</i>	<i>10-17-02</i>

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

APR 05 2002

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

APR 11 2002

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
skw	2,785,108	03/12/57	Hawley			APR 17 2002
skw	2,935,503	05/03/60	Hawley			
skw	4,091,117	05/23/78	Mutai et al.			
skw	4,716,115	12/29/87	Gonzalez et al.			
skw	5,173,297	12/22/92	Vedamuthu et al.			
skw	5,294,458	03/15/94	Fujimori			
skw	5,340,577	08/23/94	Nisbet et al.			
skw	5,494,664	02/27/96	Brassart et al.			
skw	5,520,936	05/28/96	Delespaul et al.			
skw	5,594,103	01/14/97	De Vos et al.			
skw	5,602,109	02/11/97	Masor et al.			
skw	5,700,590	12/23/97	Masor et al.			
skw	5,753,614	05/19/98	Blackburn et al.			
skw	5,776,524	07/07/98	Reinhart			
skw	5,837,238	11/17/98	Casas et al.			
skw	5,877,272	03/02/99	Vandenbergh			
skw	5,902,578	05/11/99	Halpin-Dohnalek et al.			
skw	5,902,743	05/11/99	Luchansky et al.			
skw	5,922,375	07/13/99	Luchansky et al.			
skw	5,952,314	09/14/99	DeMichele et al.			
skw	5,968,569	10/19/99	Cavadini et al.			
skw	5,972,415	10/26/99	Brassart et al.			

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	NONE			—	—		

EXAMINER

Dulanh K. Abu

Date Considered

10-17-02

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

APR 11 2002
PATENT & TRADEMARK OFFICE
U.S. GOVERNMENT

APR 17 2002
RECEIVED
16002000

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initials TRADEMARK SEARCH	Document Description
<i>Dew</i>	American Type Culture Collection, "ATCC Number 9341," organism: <i>Micrococcus luteus</i> (<i>Schroeter</i>); designation: FDA strain PCI 1001 [online]; Manassas, VA [retrieved on 2002-04-03] from the Internet. Retrieved from the Internet: <URL: http://phage.atcc.org/cgi-bin/searchengine/longview.cgi?view=ba,534636,9341&text=9341 >; 2 pgs.
<i>Dew</i>	American Type Culture Collection, "ATCC Number 29425," organism: <i>Escherichia coli</i> (<i>Migula</i>); designation: K12 [online]; Manassas, VA [retrieved on 2002-04-03] from the Internet. Retrieved from the Internet: <URL: http://phage.atcc.org/cgi-bin/searchengine/longview.cgi?view=ba,5225109,29425&text=k12 >; 1 pg.
<i>Dew</i>	Anderssen et al., "Antagonistic activity of <i>Lactobacillus plantarum</i> C11: two new two-peptide bacteriocins, plantaricins EF and JK, and the induction factor plantaricin A," <i>Appl. Environ. Microbiol.</i> , 64(6):2269-2272 (June 1998).
<i>Dew</i>	Archibald, "Lactobacillus plantarum, an organism not requiring iron," <i>FEMS Microbiol. Letts.</i> , 19:29-32 (1983).
<i>Dew</i>	Bezkorovainy, "Iron transport and utilization by bifidobacteria," In <i>Biochemistry and Physiology of Bifidobacteria</i> , Bezkorovainy et al., eds; CRC Press, Inc., Boca Raton, FL; pp. 147-176 (1989).
<i>Dew</i>	Bollag et al., <i>Protein Methods</i> , Wiley and Sons, Inc., New York, NY; title page, publisher's page and table of contents – 10 pgs. (1996).
<i>Dew</i>	Braun "Effect of consumption of human milk and other formulas on intestinal bacterial flora in infants," Chapter 23 in <i>Textbook of Gastroenterology and Nutrition in Infancy</i> , Raven Press, New York, NY; pp. 247-253 (1981).
<i>Dew</i>	Breed et al., <i>Bergey's Manual of Determinative Bacteriology</i> , 7 th Edition. The Williams and Wilkins Co., Baltimore, MD; title page, publisher's page, and table of contents only – 8 pages (1957).
<i>Dew</i>	de Ruyter et al., "Functional analysis of promoters in the nisin gene cluster of <i>Lactococcus lactis</i> ," <i>J. Bacteriol.</i> , 178(12):3434-3439 (June 1996).
<i>Dew</i>	Dodd et al., "Analysis of the genetic determinant for production of the peptide antibiotic nisin," <i>J. Gen. Microbiol.</i> , 136(Pt 3):555-566 (Mar. 1990).
<i>Dew</i>	Eijsink et al., "Induction of bacteriocin production in <i>Lactobacillus sake</i> by a secreted peptide," <i>J. Bacteriol.</i> , 178(8):2232-2237 (April 1996).

EXAMINER	<i>Debra A. Dew</i>	Date Considered
10-17-02		

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

TECH CENTER 1600/9000

APR 17 2002

RECEIVED

Examiner Initials	Document Description
DAM 1 2002	Engelke et al., "Biosynthesis of the lantibiotic nisin: genomic organization and membrane localization of the NisB protein," <i>Appl. Environ. Microbiol.</i> , 58(11):3730-3743 (Nov. 1992).
DPM	Engelke et al., "Regulation of nisin biosynthesis and immunity in <i>Lactococcus lactis</i> 6F3," <i>Appl. Environ. Microbiol.</i> , 60(3):814-825 (March 1994).
DPM	Fuller, R., "Probiotics in man and animals," <i>J Appl Bacteriol.</i> , 66(5):365-378 (May 1989).
DPM	Fuller, R., "Probiotics for farm animals," In <i>Probiotics: A Critical Review</i> , Tannock, ed., Horizon Scientific Press, Wymondham, UK; pp. 15-22 (1999).
DPM	Green, "Case report: fatal anaerobic pulmonary infection due to <i>Bifidobacterium eriksonii</i> ," <i>Postgrad Med.</i> 1978 Mar;63(3):187-8, 190, 192.
DPM	Gibson et al., "Regulatory effects of bifidobacteria on the growth of other colonic bacteria," <i>J Appl Bacteriol.</i> , 77(4):412-420 (Oct. 1994).
DPM	Hansen, "Nisin as a model food preservative," <i>Crit Rev Food Sci Nutr.</i> , 34(1):69-93 (1994).
DPM	Ibrahim et al., "Inhibition of <i>Escherichia coli</i> by bifidobacteria," <i>J. Food Prot.</i> , 56(8):713-715 (Aug. 1993).
DPM	Immonen et al., "The codon usage of the <i>nisZ</i> operon in <i>Lactococcus lactis</i> N8 suggests a non-lactococcal origin of the conjugative nisin-sucrose transposon," <i>DNA Seq.</i> , 5(4):203-218 (1995).
DPM	Klaenhammer, "Genetics of bacteriocins produced by lactic acid bacteria," <i>FEMS Microbiol. Rev.</i> , 12(1-3):39-85 (Sept. 1993).
DPM	Kuipers et al., "Characterization of the nisin gene cluster <i>nisABTCIPR</i> of <i>Lactococcus lactis</i> . Requirement of expression of the <i>nisA</i> and <i>nisI</i> genes for development of immunity," <i>Eur. J. Biochem.</i> , 216(1):281-291 (Aug. 1993).
DPM	Kuipers et al., "Autoregulation of nisin biosynthesis in <i>Lactococcus lactis</i> by signal transduction," <i>J. Biol. Chem.</i> , 270(45):27299-27304 (Nov. 1995).
DPM	Kullen et al., "Evaluation of using a short region of the <i>recA</i> gene for rapid and sensitive speciation of dominant bifidobacteria in the human large intestine," <i>FEMS Microbiol. Lett.</i> , 154(2):377-383 (Sept. 1997).
DPM	Mevissen-Verhage et al., "Effect of iron on neonatal gut flora during the first three months of life," <i>Eur. J. Clin. Microbiol.</i> , 4(3):273-278 (June 1985).

EXAMINER	Date Considered
<i>Deborah Ware</i>	<i>10-17-02</i>

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

RECEIVED

Examiner Initials	Document Description	Date
<i>O'Sullivan</i>	Mitsuoka et al., "Ecology of the bifidobacteria," <i>American Journal of Clinical Nutrition</i> . 1977 Nov;30(11):1799-1810.	APR 17 2002 REC'D APR 16 2002 16092900
<i>O'Sullivan</i>	Iodler et al. "Bifidobacteria and bifidogenic factors," <i>Canadian Institute Food Science Technology Journal</i> 1990;23(1):29-41.	APR 17 2002 REC'D APR 16 2002 16092900
<i>O'Sullivan</i>	Muñoa et al., "Selective medium for isolation and enumeration of <i>Bifidobacterium</i> spp," <i>Appl. Environ. Microbiol.</i> , 54(7):1715-1718 (July 1988).	
<i>O'Sullivan</i>	Neilands, "Molecular aspects of regulation of high affinity iron absorption in microorganisms," Chapter 3 in <i>Metal-Ion Induced Regulation of Gene Expression</i> , which is Vol. 8 of series <i>Adv. Inorg. Biochem.</i> , pp. 63-90 (1990).	
<i>O'Sullivan</i>	Neilands et al. "Comparative biochemistry of microbial iron assimilation," In <i>Iron Transport in Microbes, Plants and Animals</i> , Winkelmann et al., eds.; VCH mbh, Weinheim, Germany, pp. 3-33 (1987).	
<i>O'Sullivan</i>	Nes et al., "Biosynthesis of bacteriocins in lactic acid bacteria," <i>Antonie Van Leeuwenhoek</i> , 70(2-4):113-128 (Oct. 1996).	
<i>O'Sullivan</i>	Nilsen et al., "An exported inducer peptide regulates bacteriocin production in <i>Enterococcus faecium</i> CTC492," <i>J. Bacteriol.</i> , 180(7):1848-1854 (April 1998).	
<i>O'Sullivan</i>	O'Sullivan, "Cloning, organization and regulation of genes involved in iron metabolism in fluorescent <i>Pseudomonas</i> spp. with biocontrol potential," Ph.D. thesis, National University of Ireland, Cork; pp. 1-120 (1990).	
<i>O'Sullivan</i>	O'Sullivan et al., "Traits of fluorescent <i>Pseudomonas</i> spp. involved in suppression of plant root pathogens," <i>Microbiol. Rev.</i> , 56(4):662-676 (Dec. 1992).	
<i>O'Sullivan</i>	O'Sullivan et al., "Tracking of probiotic bifidobacteria in the intestine," <i>Int. Dairy J.</i> , 8:513-525 (1998).	
<i>O'Sullivan</i>	O'Sullivan "Characterization of non-acid inhibitory characteristics of a human <i>Bifidobacterium</i> isolate against clostridia and <i>E. coli</i> ," American Dairy Science Association 1999 Annual Meeting, Memphis Cook Convention Center, Memphis, TN, June 20-23, 1999 (abstract available June 19, 1999).	
<i>O'Sullivan</i>	O'Sullivan, "Screening of intestinal microflora for effective probiotic bacteria," <i>J. Agric. Food Chem.</i> , 49(4):1751-1760 (Apr. 2001).	
<i>O'Sullivan</i>	Oyarzabal et al., " <i>In vitro</i> fructooligosaccharide utilization and inhibition of <i>Salmonella</i> spp. by selected bacteria," <i>Poult Sci.</i> , 74(9):1418-1425 (Sept. 1995).	

EXAMINER

Dilma K. Wren

Date Considered

10-77-02

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

Examiner Initial	Document Description
<i>JKW</i>	Paupard et al., "Biology of the bifidobacteria," <i>Bacteriol Rev.</i> , 37(2):136-165 (June 1973).
<i>JKW</i>	Betlow, et al., "Aberrant crypts in human colonic mucosa: putative preneoplastic lesions," <i>J Cell Biochem Suppl.</i> 1992;16G:55-62.
<i>JKW</i>	Rammelsberg et al., "Antibacterial polypeptides of <i>Lactobacillus</i> species," <i>J. Appl. Bacteriol.</i> , 69:177-184 (1990).
<i>JKW</i>	Resnick et al., "Assessment of bifidobacteria as indicators of human fecal pollution," <i>Appl Environ Microbiol.</i> , 42(3):433-438 (Sept. 1981).
<i>JKW</i>	Rossi et al., "Improved cloning vectors for <i>Bifidobacterium</i> spp," <i>Lett. Appl. Microbiol.</i> , 26(2):101-104 (Feb. 1998).
<i>JKW</i>	Sambrook et al., <i>Molecular Cloning: A Laboratory Manual</i> , Cold Spring Harbor Laboratory Press, table of contents and title page; 26 pages (1989).
<i>JKW</i>	Sanders, "Probiotics," <i>Food Technol.</i> , 53:67-77 (1999).
<i>JKW</i>	Sasaki et al., "Enhanced resistance of mice to <i>Escherichia coli</i> infection induced by administration of peptidoglycan derived from <i>Bifidobacterium thermophilum</i> ," <i>J Vet Med Sci.</i> , 56(3):433-437 (June 1994).
<i>JKW</i>	Scardovi, "Genus <i>Bifidobacterium</i> Orla-Jensen 1924, 472 ^{AL} ," In <i>Bergey's Manual of Systematic Bacteriology</i> , Vol. 2, Sneath et al., eds. ; Williams & Wilkins Co., Baltimore, MD, pp. 1418-1434 (1986).
<i>JKW</i>	Scardovi et al., "Deoxyribonucleic acid homology among the species of the genus <i>Bifidobacterium</i> isolated from animals," <i>Archiv fur Mikrobiologie</i> , 1970;72:318-325.
<i>JKW</i>	Shefet et al., "Efficacy of optimized nisin-based treatments to inhibit <i>Salmonella typhimurium</i> and extend shelf life of broiler carcasses," <i>J. Food Prot.</i> , 58(10):1077-1082 (1995).
<i>JKW</i>	Siegers et al., "Genes involved in immunity to the lantibiotic nisin produced by <i>Lactococcus lactis</i> 6F3," <i>Appl. Environ. Microbiol.</i> , 61(3):1082-1089 (Mar. 1995).
<i>JKW</i>	Singh et al., " <i>Bifidobacterium longum</i> , a lactic acid-producing intestinal bacterium inhibits colon cancer and modulates the intermediate biomarkers of colon carcinogenesis," <i>Carcinogenesis</i> . 1997 Apr;18(4):833-41.

EXAMINER	Date Considered
<i>Dilshah K. Wani</i>	<i>10-17-02</i>
<p>*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

Examiner Initials	Document Description
<i>O'K</i> APR 11 2002	Steen et al., "Characterization of the nisin gene as part of a polycistronic operon on the chromosome of <i>Lactococcus lactis</i> ATCC 11454," <i>Appl. Environ. Microbiol.</i> , 57(4):1181-1188 (April 1991).
<i>O'K</i>	Stevens et al., "Nisin treatment for inactivation of <i>Salmonella</i> species and other gram-negative bacteria," <i>Appl. Environ. Microbiol.</i> , 57(12):3613-3615 (Dec. 1991).
<i>O'K</i>	Torres et al., "Haem iron-transport system in enterohaemorrhagic <i>Escherichia coli</i> O157:H7," <i>Mol. Microbiol.</i> , 23(4):825-833 (Feb. 1997).
<i>O'K</i>	United States Department of Health & Human Services, "Nisin preparation: affirmation of GRAS status as a direct human food ingredient," <i>Federal Register</i> , 53(66): 11247-11251 (Apr. 1988).
<i>O'K</i>	United States Food and Drug Administration, Center of Food Safety & Applied Nutrition, Office of Premarket Approval, "Antimicrobial Food Additives - Guidance," retrieved Dec. 17, 2001 from the Internet. Internet URL: < http://www.cfsan.fda.gov/~dms/opa-antg.html >, 9 pages (July 1999).
<i>O'K</i>	van der Meer et al., "Characterization of the <i>Lactococcus lactis</i> nisin A operon genes <i>nisP</i> , encoding a subtilisin-like serine protease involved in precursor processing, and <i>nisR</i> , encoding a regulatory protein involved in nisin biosynthesis," <i>J. Bacteriol.</i> , 175(9):2578-2588 (May 1993).
<i>O'K</i>	Woese et al., "Bacterial evolution," <i>Microbiol Rev.</i> 1987 Jun;51(2):221-71.
<i>O'K</i>	Yamauchi et al., "Antibacterial activity of lactoferrin and a pepsin-derived lactoferrin peptide fragment," <i>Infect. Immun.</i> , 61(2):719-728 (Feb. 1993).
<i>O'K</i>	Yildirim et al. "Characterization and antimicrobial spectrum of bifidocin B, a bacteriocin produced by <i>Bifidobacterium bifidum</i> NCFB 1454," <i>J. Food Prot.</i> , 61(1):47-51 (Jan. 1998).

EXAMINER	<i>Danh K. Wu</i>	Date Considered
<i>10-17-02</i>		
*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		